ABSTRACT

A method of production of a silicon carbide single crystal enabling fast, stable, and continuous growth of a high quality silicon carbide single crystal and enabling both an increase in size of the bulk single crystal and an improvement of quality of a thin film single crystal, comprising stacking, in order from the bottom, a silicon carbide source material rod, a solvent, a seed crystal, and a support rod supporting the seed crystal at its bottom end so as to form a columnar workpiece, heating a bottom end of the source material rod as a bottom end of the columnar workpiece, and cooling a top end of the support rod as the top end of the columnar workpiece so as to form a temperature gradient inside the columnar workpiece so that the top end face becomes lower in temperature than the bottom end face of the solvent; and causing a silicon carbide single crystal to grow continuously to the bottom starting from the seed crystal, wherein said method further comprises using an inside cylindrical susceptor tightly surrounding the outer circumference of the columnar workpiece.